

Amendments To The Claims:

1. (Currently Amended): A stair lift for lifting and lowering at least one person on a rail on a stairway, the stair lift comprising:

a rail, the rail having a structural portion and a track, wherein the track, is mountable to an upper surface of the structural portion of said rail, said track comprising a row of plastic molded teeth shaped to engage a spiral drive ;

a carriage mountable to said rail, said carriage having a track engaging spiral plastic drive gear, and a motor to power said drive gear, said powered drive causing said carriage to move along said rail;

a seat support ~~central support post~~ mounted on said carriage~~[[:]]~~,

~~an offset arm connected to said seat support post,~~ said seat support ~~offset arm~~ being mountable to said carriage in one of a left side or a right side position;

a seat pivotally mounted on said ~~offset arm~~ seat support on a laterally offset pivot axis, and

a means for angularly securing said seat in position on said ~~offset arm~~ seat support in either said left side or right side position and for selectively releasing said seat to permit said seat to swivel about said laterally offset pivot axis between an upward facing position and a sideways facing position on said seat support ~~offset arm~~ to facilitate said person getting into and out of said seat.

2. (Cancelled): ~~A stair lift as claimed in claim 1 wherein said stair lift includes said rail and said rail comprises a track portion and a structural portion.~~

3. (Original): A stair lift as claimed in claim 2 wherein said structural portion is a hollow section having side channels and said carriage has wheels which ride in said side

channels.

4. (Original): A stair lift as claimed in claim 3 wherein said carriage further includes bearings adjacent to said wheels.
5. (Original): A stair lift as claimed in claim 4 wherein said rail is comprised of two or more sections joined end to end.
6. (Original): A stair lift as claimed in claim 5 wherein said rail further includes a race for electrical wires.
7. (Original): A stair lift as claimed in claim 6 wherein said rail sections are joined together by connectors, said connectors being sized and shaped to draw abutting edges of said rail sections into tight contact.
8. (Original): A stair lift as claimed in claim 7 wherein said rail section includes a channel for retaining a switch trip element.
9. (Original): A stair lift as claimed in claim 8 further including a switch trip element housed within said channel to trip switches on said carriage to control movement of said carriage along said rail.
10. (Currently Amended): A stair lift as claimed in claim 2 wherein said rail includes a track retaining profile on said upper surface and ~~said a track is slidable~~ slidably retained in said track retaining profile.
11. (Cancelled): ~~A stair lift as claimed in claim 10 wherein said track comprises a row of teeth mounted to an upper surface of said rail.~~
12. (Original): A stair lift as claimed in claim 11 wherein said teeth are formed into discrete track sections, which abut end to end to form said row of teeth having a substantially even spacing of teeth along said track.

13. (Cancelled): ~~A stair lift as claimed in claim 12 wherein said teeth track sections are formed from molded plastic.~~
14. (Original): A stair lift as claimed in claim 13 wherein said track sections further include a reinforcing element to reduce the displacement of said teeth under loads.
15. (Original): A stair lift as claimed in claim 14 wherein said reinforcing element does not extend fully to the ends of each of said track section.
16. (Original): A stair lift as claimed in claim 14 wherein said rail includes a clamping element to apply an axial load along said track sections.
17. (Currently Amended): A stair lift as claimed in claim 15 ~~wherein said track sections are formed with a larger gap between the teeth at the ends of each abutting track section than the gap between the teeth located inwardly of the ends, and said clamping element applies enough compression to said track sections to compress said larger end gap to the same dimension as the gap between the other teeth~~ 16 wherein said axial load improves the performance of the track under load.
18. (Currently Amended): A stair lift as claimed in claim 1 wherein said seat support ~~includes a seat~~ central support post is pivotally mounted at a pivot point to said carriage.
19. (Original): A stair lift as claimed in claim 18 wherein said seat support post includes a fastener to lock said seat support post at a given angle relative to said carriage.
20. (Currently Amended): A stair lift as claimed in claim 19 wherein said seat support post is in the form of a single post above said pivotal mounting and is in the form of a forked element below said pivot point, wherein said seat support post can extend down around a motor located within said carriage.

21. **(Currently Amended):** A stair lift as claimed in claim 1 wherein said carriage includes a ~~worm gear drive~~ and said motor drives said worm gear drive in two directions to permit said carriage to move in opposite directions along said rail.
22. **(Cancelled):** ~~A stair lift as claimed in claim 21 wherein said worm gear is formed from plastic.~~
23. **(Original):** A stair lift as claimed in claim 21 wherein said carriage includes limit switches to control operation of said motor.
24. **(Original):** A stair lift as claimed in claim 23 wherein said carriage includes at least three limit switches, one at a time of two to slow said carriage, and the third to stop said carriage as said carriages approaches an end of said rail.
25. **(Original):** A stair lift as claimed in claim 1 wherein said carriage includes a manual motor switch to activate said motor to facilitate the installation of said carriage on said track.
26. **(Currently Amended):** A stair lift as claimed in claim 1 wherein said carriage further includes a foot rest which can be placed on said carriage ~~over said seat support post~~ in one of a left side and right side position.
27. **(Original):** A stair lift as claimed in claim 26 wherein said foot rest covers said manual motor switch to prevent access to said switch once the carriage is installed.
28. **(Currently Amended):** A stair lift as claimed in claim 1 wherein said laterally offset pivot axis ~~offset arm~~ is sized positioned to permit said rail to be mounted closely adjacent to a side of said stairway, without said seat interfering with a side wall thereof.
29. **(Original):** A stair lift as claimed in claim 1 wherein said seat includes at least one offset mount for mounting said seat on said offset arm.

30. **(Currently Amended):** A stair lift as claimed in claim 29 wherein said seat includes at least two offset mounts for said ~~offset-arm~~ seat support, with at least one ~~one~~ located at either side of said seat wherein said seat may mounted in either a left hand or a right hand offset configuration.
31. **(Currently Amended):** A stair lift as claimed in claim 1 wherein said ~~a~~ means for angularly securing said seat in position on said seat support ~~offset-arm~~ comprises a notched plate and a ~~moveable-cam~~ latch sized and shaped to engage said notches mounted between said seat and said offset arm, wherein said latch ~~moveable-cam~~ can selectively engage said notches to fix said seat in position.
32. **(Currently Amended):** A stair lift as claimed in claim 31 wherein said notched plate is fixed to said post and said latch ~~moveable-cam~~ is mounted to said seat.
33. **(Currently Amended):** A stair lift as claimed in claim 32 wherein said ~~moveable-cam~~ latch is manually accessible from said seat to permit said person to easily lock and unlock said seat.
34. **(Original):** A stair lift as claimed in claim 33 wherein said seat further includes limit switches, where said motor is disabled if said seat is free to swivel and is engaged if said seat is locked in the one correct position facing the center of the stair.
35. **(Original):** A stair lift as claimed in claim 1 wherein said carriage includes contact switches to disable said motor if said carriage contacts an obstacle.
36. **(Original):** A stair lift as claimed in claim 1 wherein said motor is an battery powered electric motor, wherein said batteries are contained in said carriage, and said carriage includes electrical contacts for connecting to a power supply to recharge said batteries when said carriage is at an end of said rail.

37. **(Original):** A stair lift as claimed in claim 36 wherein said rail includes a mount for mounting a recharging contact to said rail, wherein said recharging contact is positioned to be contacted by said carriage when said carriage is at an end of said rail.
38. **(Currently Amended):** A stair lift as claimed in claim 37 wherein said mount is located at either end of said rail to recharge said battery motor whether said carriage is left at the top or the bottom of the rail.
39. **(Original):** A stair lift as claimed in claim 38 wherein said mount comprises a channel on either side of said rail for inserting a respective positive and negative contact.
40. **(Original):** A stair lift as claimed in claim 39 wherein said channel for said positive contact is different from said channel for said negative contact, wherein only said proper contact may be placed into the mount.
41. **(Original):** A stair lift as claimed in claim 40 wherein said channels are formed along the length of said rail wherein said rail may be trimmed to length without affecting access to said mount.
42. **(Original):** A stair lift as claimed in claim 1 wherein said rail is a hollow extruded section which can be trimmed to length.
43. **(Original):** A stair lift as claimed in claim 42 wherein said rail is formed from aluminum.
44. **(Original):** A stair lift as claimed in claim 42 further including one or more feet for securing the rail to a stairway.
45. **(Original):** A stair lift as claimed in claim 1 further including a level to aid in orienting said seat post in a vertical orientation about said pivot point.

46. **(Original):** A stair lift as claimed in claim 45 wherein said level is sized and shaped to fit on top of said seat post before said offset arm is attached.
47. **(Original):** A stair lift as claimed in claim 1 further including a disposable ramp for guiding said carriage onto said rail when installing said carriage on the rail.